OIPE

RAW SEQUENCE LISTING   DATE: 12/18/2001
PATENT APPLICATION: US/10/005,168   TIME: 16:05:36

Input Set : A:\PTO.DC.txt
Output Set: N:\CRF3\12182001\J005168.raw

```
     4 <110> APPLICANT: Brennan, Thomas J.
     6 <120> TITLE OF INVENTION: TRANSGENIC MICE CONTAINING DISRUPTIONS
     7       IN GENES ENCODING A2D2 CALCIUM ION CHANNEL SUBUNIT PROTEINS
    10 <130> FILE REFERENCE: R-10
C--> 12 <140> CURRENT APPLICATION NUMBER: US/10/005,168
C--> 12 <141> CURRENT FILING DATE: 2001-12-04
    12 <150> PRIOR APPLICATION NUMBER: US 60/299,668
    13 <151> PRIOR FILING DATE: 2001-06-19
    15 <150> PRIOR APPLICATION NUMBER: US 60/282,685
    16 <151> PRIOR FILING DATE: 2001-04-09
    18 <150> PRIOR APPLICATION NUMBER: US 60/254,802
    19 <151> PRIOR FILING DATE: 2000-12-11
    21 <160> NUMBER OF SEQ ID NOS: 4
    23 <170> SOFTWARE: FastSEQ for Windows Version 4.0
    25 <210> SEQ ID NO: 1
    26 <211> LENGTH: 2552
    27 <212> TYPE: DNA
    28 <213> ORGANISM: Mus musculus
    30 <400> SEQUENCE: 1
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    32 cctgggaacc tgggtgctgc accccggggt gtctttgtgc ccaccattgc agatttcctt 120
    33 aacttggcct ggtggacctc tgctgccgcc tggtccttat tccagcagct actctatggt 180
    34 ctcatctatc acagctggtt ccaggcagac ccggcagaag ctgagggcag ccccgagacg 240
    35 cgcgagagca gctgcgtcat gaaacagacc cagtactact tcggctcggt gaacgcatcc 300
    36 tataatgcca tcattgactg cggaaactgc agcaggctgt tccatgcgca gagactgacc 360
    37 aacaccaatc tcctgttcgt ggtggccgag aagccgctgt gcagccagtg cgaggcgggc 420
    38 cggctgctgc agaaggagac acactcggac ggcccggagc agtgtgagct ggtgcagaga 480
    39 ccgagatacc gaagaggtcc gcacatctgt tttgactaca atgcgacgga agatacctca 540
    40 gactgtggcc gcggagcctc cttccctccg tcgctgggcg tcttggtttc cttgcagctt 600
    41 ttgctcctcc tgggcctgcc acctcggccg cagcctcaag tccactcctt cgctgcctct 660
    42 cgccacctct gagcgaccca cacacacaca tcatacccc gccttggcct cctagccttt 720
    43 cgctcaccct cccattccac attccccaat ctagagcctt ggccactctc tcctgaagga 780
    44 cctgggtccc ttcccccgga gcctgtgcct tggggcaggg gaaccccaaa gtaaggtgcc 840
    45 atggtgtttg gcactcaaga tttagctcac ccttgaactg tccaagtgcc cgcagtccct 900
    46 agactcatcc ccgtgggcta ggacaggagg ccactagtac tgatgccaaa ccaggcctcc 960
    47 accgacccac ctgcctggag atttcctcta tgtaggcaac cctgccactg ctgggcacct 1020
    48 ctaactggcc ctttggcccc acccaagccc aaacttacct tctctggggg aaaaaaaaag 1080
    49 gaaagatggt aatagtgaga gattcggggg gcaccccctc cccattggtt tctggccctt 1140
    50 tcaggctaca accccccagc cttgcaggtg tcagaacagt ctcacaatga catcagttta 1200
    51 gacacatgcc atatacactt ggatctctga gagcagaaac ccaactctca ctagacatac 1260
    52 ctgtgatgga acacacaaac agacacgcac catggggggt ggcccacaaa gccttacaca 1320
    53 aggcgagatg tcaatgaagg ggttggcctg tgtgttccat ctctgctcac ctctgcctct 1380
    54 actctgagat gcagcctggc tgatcctccc atctctaaaa ctgaatgtca aaccgtgcca 1440
    55 aatgctgggg ggggggggag acctctctgt ttcaccccta gccaccagtg tccccaagtg 1500
    56 cccctcaccc tgccaggtgc tcattgtaac catcgttcac cagtgtccgg cccctagtag 1560
    57 gaccacacat cactgcctga actcctttgg cagaagaacc ccaccagaca ttgagacatt 1620
    58 gtattttgcc ttagcaggga tgagttggtc tctcctggct gggccatccc atccccaatc 1680
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59 tggttcttgc acactcaggc ctaattccct ctgcacacac acacacacac acacacacac 1740
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61 gaacacaccc ttgcaccatg cacatgtcta accaaccgta ctgcacacac agaggctgga 1860
62 cctgggacac atctctttac acctttcatt ctgtcatttc tcccaaaggc atcgtaactt 1920
63 gggggccagg aggggactga ggggcagggg ggaggggtgt agctgtgagg ctcagatgga 1980
64 ctgggaggag ggggagggt gatacattaa ttaatggctt cgttaattaa tgtcatgttg 2040
65 cttgttgctt tctcagtgtg tgtatggtcc atgcccagtg ctggtgacag ggtgggtatc 2100
66 catgatgtgt gcccagcctg gatgtcagct gtgtcctgtg ggggcgtgtg tgtaactgta 2160
67 gtgtagtcag gtgctcaacg gagaatataa acaaaaaaaa aagaaacaaa cgtatacaga 2220
68 aaaataaatg tatattttaa gtttaaagac aaatgaaacc agacaaaaca atccccatca 2280
69 ggtagttgtc caacccccag ctgggttcaa ccctctcatt acccacctga cctagctgtc 2340
70 cccttactgt gggctggggg acttgggggc catttccttt gccctttttt tttgttgtta 2400
71 ttctattttg tacagacaag ttgggaaaac aacagcgaca aaaaaaagtc gagaaacttt 2460
72 gtaaaatatt gtgtgtgtga ttccttgtaa aatattttca aatggtttat tacagaagat 2520
73 cagttattaa ataatgttca tattttcact tc                                2552
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76 <211> LENGTH: 223
77 <212> TYPE: PRT
78 <213> ORGANISM: Mus musculus
80 <400> SEQUENCE: 2
81 Asn Ser Phe Tyr Thr Arg Lys Glu Ser Tyr Asp Tyr Gln Ala Ala Cys
82 1               5                   10                  15
83 Ala Pro Gln Pro Pro Gly Asn Leu Gly Ala Ala Pro Arg Gly Val Phe
84              20                  25                  30
85 Val Pro Thr Ile Ala Asp Phe Leu Asn Leu Ala Trp Trp Thr Ser Ala
86          35                  40                  45
87 Ala Ala Trp Ser Leu Phe Gln Gln Leu Leu Tyr Gly Leu Ile Tyr His
88      50                  55                  60
89 Ser Trp Phe Gln Ala Asp Pro Ala Glu Ala Glu Gly Ser Pro Glu Thr
90 65                  70                  75                  80
91 Arg Glu Ser Ser Cys Val Met Lys Gln Thr Gln Tyr Tyr Phe Gly Ser
92              85                  90                  95
93 Val Asn Ala Ser Tyr Asn Ala Ile Ile Asp Cys Gly Asn Cys Ser Arg
94              100                 105                 110
95 Leu Phe His Ala Gln Arg Leu Thr Asn Thr Asn Leu Leu Phe Val Val
96          115                 120                 125
97 Ala Glu Lys Pro Leu Cys Ser Gln Cys Glu Ala Gly Arg Leu Leu Gln
98      130                 135                 140
99 Lys Glu Thr His Ser Asp Gly Pro Glu Gln Cys Glu Leu Val Gln Arg
100 145                 150                 155                 160
101 Pro Arg Tyr Arg Arg Gly Pro His Ile Cys Phe Asp Tyr Asn Ala Thr
102                 165                 170                 175
103 Glu Asp Thr Ser Asp Cys Gly Arg Gly Ala Ser Phe Pro Pro Ser Leu
104             180                 185                 190
105 Gly Val Leu Val Ser Leu Gln Leu Leu Leu Leu Gly Leu Pro Pro
106          195                 200                 205
107 Arg Pro Gln Pro Gln Val His Ser Phe Ala Ala Ser Arg His Leu
108      210                 215                 220
111 <210> SEQ ID NO: 3
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112 <211> LENGTH: 200
113 <212> TYPE: DNA
114 <213> ORGANISM: Artificial Sequence
116 <220> FEATURE:
117 <223> OTHER INFORMATION: Targeting vector
119 <400> SEQUENCE: 3
120 acggtgtagg tcagagcctt ctagagcatg ccctgtgact atggatctct ccctgcatcc 60
121 ccaggttggc agattcttca gtgaggtgga tgccaacctg atgctggcac tgtacaataa 120
122 ctccttctac acccgaaagg aatcctatga ctatcaggca gcctgtgccc ctcagcctcc 180
123 tgggaacctg ggtgctgcac                                             200
125 <210> SEQ ID NO: 4
126 <211> LENGTH: 200
127 <212> TYPE: DNA
128 <213> ORGANISM: Artificial Sequence
130 <220> FEATURE:
131 <223> OTHER INFORMATION: Targeting vector
133 <400> SEQUENCE: 4
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135 aggatgcttg gccccaaatc tgtgtccagg gcgggaacag atgctcggat cacaaggaga 120
136 gtggggctta gggctgcgcc aagctgaggc ggacgattgt ctgtgggcgg ggctgaggcg 180
137 tctgggcccc gcagacccgg                                             200
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VERIFICATION SUMMARY   DATE: 12/18/2001
PATENT APPLICATION: US/10/005,168   TIME: 16:05:37

Input Set : **A:\PTO.DC.txt**
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:12 M:270 C: Current Application Number differs, Replaced Current Application No
:12 M:271 C: Current Filing Date differs, Replaced Current Filing Date